



# Analytical Laboratory

13339 Hagers Ferry Road  
Huntersville, NC 28078-7929  
McGuire Nuclear Complex - MG03A2  
Phone: 980-875-5245 Fax: 980-875-4349

## Order Summary Report

**Order Number:** J12110040

Project Name: NPDES - MONTHLY

Customer Name(s): Matthew Dorn, Mark Harper, Todd Spade, Tara Thomas, Matthew Hoyt

Customer Address: 11021 BROWER RD.

NORTH BEND, OH 45052

Lab Contact: Theron T James Phone: 980-875-4795

**Report Authorized By:** \_\_\_\_\_ **Date:** 11/15/2012  
(Signature)

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### Program Comments:

Miami Fort November NPDES - Week 1

### Data Flags & Calculations:

Any analytical tests or individual analytes within a test flagged with a Qualifier indicate a deviation from the method quality system or quality control requirement. The qualifier description is found at the end of the Certificate of Analysis (sample results) under the qualifiers heading. All results are reported on a dry weight basis unless otherwise noted. Subcontracted data included on the Duke Certificate of Analysis is to be used as information only. Certified vendor results can be found in the subcontracted lab final report. Duke Energy Analytical Laboratory subcontracts analyses to other vendor laboratories that have been qualified by Duke Energy to perform these analyses except where noted.

### Data Package:

This data package includes analytical results that are applicable only to the samples described in this narrative. An estimation of the uncertainty of measurement for the results in the report is available upon request. This report shall not be reproduced, except in full, without the written consent of the Analytical Laboratory. Please contact the Analytical laboratory with any questions. The order of individual sections within this report is as follows:

*Job Summary Report, Sample Identification, Technical Validation of Data Package, Analytical Laboratory Certificate of Analysis, Analytical Laboratory QC Reports, Sub-contracted Laboratory Results, Customer Specific Data Sheets, Reports & Documentation, Customer Database Entries, Test Case Narratives, Chain of Custody (COC)*

### Certification:

The Analytical Laboratory holds the following State Certifications : North Carolina (DENR) Certificate #248, South Carolina (DHEC) Laboratory ID # 99005. Contact the Analytical Laboratory for definitive information about the certification status of specific methods.

*The results in this report meet NELAP requirements through New York State Department of Health Certification # 11717.. Certified parameters are designated with an "N" in the analytical report.*

Sample ID's & Descriptions:

Sample ID	Plant/Station	Collection Date and Time	Collected By	Sample Description
2012023423	MIAMI-FORT	06-Nov-12 8:00 AM	Mark Harper	OUTFALL 002
2012023424	MIAMI-FORT	06-Nov-12 7:40 AM	Mark Harper	OUTFALL 608
2 Total Samples				

## Technical Validation Review

### Checklist:

- |  |   |  |
|--|---|--|
| COC and .pdf report are in agreement with sample totals and analyses (compliance programs and procedures). | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            |
| All Results are less than the laboratory reporting limits.   | <input type="checkbox"/> Yes            | <input checked="" type="checkbox"/> No |
| All laboratory QA/QC requirements are acceptable.  | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            |

### Report Sections Included:

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Job Summary Report                            | <input type="checkbox"/> Sub-contracted Laboratory Results                       |
| <input checked="" type="checkbox"/> Sample Identification                         | <input type="checkbox"/> Customer Specific Data Sheets, Reports, & Documentation |
| <input checked="" type="checkbox"/> Technical Validation of Data Package          | <input type="checkbox"/> Customer Database Entries                               |
| <input checked="" type="checkbox"/> Analytical Laboratory Certificate of Analysis | <input checked="" type="checkbox"/> Chain of Custody                             |
| <input type="checkbox"/> Analytical Laboratory QC Report                          | <input type="checkbox"/> Electronic Data Deliverable (EDD) Sent Separately       |

Reviewed By: Theron T James

Date: 11/15/2012

# Certificate of Laboratory Analysis

*This report shall not be reproduced, except in full.*

**Order # J12110040**

Site: OUTFALL 002

Collection Date: 06-Nov-12 8:00 AM

**Sample #: 2012023423**

Matrix: NPDES

Analyte	Result	Units	Qualifiers	RDL	DF	Method	Analysis Date/Time	Analyst
<b><u>TOTAL DISSOLVED SOLIDS</u></b>								
TDS	<b>1000</b>	mg/L	N	10	1	SM2540C	11/12/2012 16:32	SWILLI3

Site: OUTFALL 608

Collection Date: 06-Nov-12 7:40 AM

**Sample #: 2012023424**

Matrix: NPDES

Analyte	Result	Units	Qualifiers	RDL	DF	Method	Analysis Date/Time	Analyst
<b><u>ALKALINITY (FIXED END POINT 4.5)</u></b>								
Alkalinity (mg/L CaCO <sub>3</sub> )	<b>1200</b>	mg/L (CaCO <sub>3</sub> )	N	0.1	1	SM2320B	11/09/2012 08:42	TJA7067
<b><u>INORGANIC IONS BY IC</u></b>								
Chloride	<b>4700</b>	mg/L	N	100	1000	EPA 300.0	11/08/2012 20:49	JAHERMA
Fluoride	<b>33</b>	mg/L	N	5	50	EPA 300.0	11/08/2012 20:49	JAHERMA
Sulfate	<b>6300</b>	mg/L	N	100	1000	EPA 300.0	11/08/2012 20:49	JAHERMA
<b><u>TOTAL METALS BY ICP</u></b>								
Boron (B)	<b>436</b>	mg/L	N	0.5	10	EPA 200.7	11/09/2012 11:35	DJSULL1
Iron (Fe)	<b>0.048</b>	mg/L	N	0.01	1	EPA 200.7	11/09/2012 11:35	DJSULL1
Manganese (Mn)	<b>3.51</b>	mg/L	N	0.005	1	EPA 200.7	11/09/2012 11:35	DJSULL1
<b><u>TOTAL RECOVERABLE METALS BY ICP-MS</u></b>								
Arsenic (As)	<b>&lt; 20</b>	ug/L	N	20	1	EPA 200.8	11/09/2012 10:57	KRICHR
Barium (Ba)	<b>116</b>	ug/L	N	20	1	EPA 200.8	11/09/2012 10:57	KRICHR
Cadmium (Cd)	<b>&lt; 20</b>	ug/L	N	20	1	EPA 200.8	11/09/2012 10:57	KRICHR
Chromium (Cr)	<b>&lt; 20</b>	ug/L	N	20	1	EPA 200.8	11/09/2012 10:57	KRICHR
Copper (Cu)	<b>&lt; 20</b>	ug/L	N	20	1	EPA 200.8	11/09/2012 10:57	KRICHR
Lead (Pb)	<b>&lt; 20</b>	ug/L	N	20	1	EPA 200.8	11/09/2012 10:57	KRICHR
Zinc (Zn)	<b>&lt; 20</b>	ug/L	N	20	1	EPA 200.8	11/09/2012 10:57	KRICHR
<b><u>TOTAL DISSOLVED SOLIDS</u></b>								
TDS	<b>22000</b>	mg/L	N	10	1	SM2540C	11/12/2012 16:32	SWILLI3
<b><u>TOTAL SUSPENDED SOLIDS</u></b>								
TSS	<b>9.0</b>	mg/L	N	5	1	SM2540D	11/12/2012 11:00	SWILLI3



## CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST FORM

Analytical Laboratory  
Page 5 of 5

## Duke Energy Analytical Laboratory

Mail Code MGO3A2 (Building 7405)  
13339 Hagers Ferry Rd  
Huntersville, N. C. 28078

(704) 875-5245

(704) 875-4349

Fax:

## Analytical Laboratory Use Only

LIMS #

Sample Class NPDES

Samples  
Originating  
From

OHIO

Logged By

Date &amp; Time

Vendor

SAMPLE PROGRAM  
NPDES

Cooler Temp (C)

PO #

<sup>15</sup>Preserv.: 1=HCl  
2=H<sub>2</sub>SO<sub>4</sub> 3=HNO<sub>3</sub>  
4=Ice 5=None

MR #

Customer to complete all  
appropriate non-shaded areas.<sup>14</sup>Collection Information

Date

Time

Signature

<sup>17</sup>Comp.<sup>18</sup>Grab

TDS

Cl, F, SO<sub>4</sub>B, Fe, Mn, As, Ba,  
Cd, Cr, Cu, Pb, Zn

TSS

Alkalinity

<sup>19</sup>Page \_\_1\_\_ of \_\_1\_\_  
DISTRIBUTION  
ORIGINAL to LAB,  
COPY to CLIENT

Customer must Complete

1)Project Name

MIAMI-FORT NPDES Monthly  
(Week 1 - November 6, 2012)

2)Phone No:

3)Client

Miami-Fort - Tara Thomas, Matt Hoyt

4)Fax No:

5)Business Unit:

6)Process:

7)Resp. Center To:

8)Project ID:

9)Activity ID:

10)Mail Code:

## LAB USE ONLY

<sup>11</sup>Lab ID2012023423  
2012023424

Customer to complete appropriate columns to right

<sup>12</sup>Chem  
Desktop No.<sup>13</sup>Sample Description or ID

Outfall 002

Outfall 608

11-6-12 0800

11-6-12 0740

M. H.

M. H.

<sup>17</sup>Comp.<sup>18</sup>Grab

TDS

Cl, F, SO<sub>4</sub>B, Fe, Mn, As, Ba,  
Cd, Cr, Cu, Pb, Zn

TSS

Alkalinity

Customer to sign &amp; date below - fill out from left to right.

1) Relinquished By

Date/Time

11-6-12 0820

2) Accepted By

Date/Time

11/6/12

3) Relinquished By

Date/Time

11/7/12 1100

4) Accepted By

Date/Time

11/7/12 1100

5) Relinquished By

Date/Time

6) Accepted By:

Date/Time

7) Relinquished By

Date/Time

8) Accepted By:

Date/Time

9) Seal/Locked By

Date/Time

11-6-12 0820

10) Seal/Lock Opened By

Date/Time

11/7/12 1110

11) Seal/Locked By

Date/Time

12) Seal/Lock Opened By

Date/Time

Comments:

ICP TOT - B, Fe, Mn IMS-TRM - As, Ba, Cd, Cr, Cu, Pb, Zn

Fe HACH = 0.02 mg/L

Customer, IMPORTANT!  
Please indicate desired turnaround.<sup>22</sup>Requested Turnaround10 Days X

\* 7 Days \_\_\_\_\_

\* 48 Hr \_\_\_\_\_

\* Other \_\_\_\_\_

\* Add. Cost Will Apply